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INFO RUEHCI/AMCONSUL CALCUTTA 1174
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RUEHKA/AMEMBASSY DHAKA 0682
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RHMFIUU/DEPT OF ENERGY WASHINGTON DC
RUEKJCS/SECDEF WASHDC
RUEAIIA/CIA WASHDC
RHMFIUU/HQ USCENTCOM MACDILL AFB FL
RHHMUNA/HQ USPACOM HONOLULU HI
RUCNDT/USMISSION USUN NEW YORK
RUEHII/VIENNA IAEA POSTS COLLECTIVE
RHEHAAA/NSC WASHINGTON DC
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RUEHNE/AMEMBASSY NEW DELHI 6137
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UNCLAS SECTION 01 OF 03 MUMBAI 002068

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DEPT. OF ENERGY FOR U/S GARMAN, S. JOHNSON, T. CUTLER, A. SCHEINEMAN
DEPT OF COMMERCE FOR U/S F. LAVIN, A/S VINEYARD, J. NEUHOF

E.O. 12958: N/A

TAGS: [PREL](#) [PARM](#) [TSPL](#) [KNNP](#) [ETTC](#) [ENRG](#) [TRGY](#) [PGOV](#) [ECON](#)

BEXP, IN

SUBJECT: CIVIL NUCLEAR COOPERATION MUST NOT CONSTRAIN INDIA'S
THREE-STAGE PROGRAM, KAKODKAR TELLS U/S LAVIN

REF: MUMBAI 2064

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Summary

1. (SBU) Anil Kakodkar, chairman of India's Atomic Energy Commission, told Commerce Undersecretary Frank Lavin and U.S. nuclear industry leaders on December 2 that the planned U.S.-India civil nuclear initiative must not constrain India's planned three stage program that will establish a closed nuclear fuel cycle. To help bridge the country's power needs before the closed fuel model became reality, India would import foreign reactors in significant numbers once the civil nuclear deal was implemented, he said. India expected that foreign vendors understood the country's determination to transfer technology and indigenize development and construction of nuclear technology initially purchased abroad, he emphasized. Kakodkar said public/private partnerships, including partnerships with foreign companies, in the nuclear power business were already possible under existing Indian law as long as a state-owned Indian company maintains the majority. Regulatory issues needed to be worked out, but India was open to foreign participation in the nuclear generation business, he said. U/S Lavin invited Kakodkar and representatives from the Indian nuclear industry to Washington to share their perspective with U.S. decision makers. Kakodkar suggested the two sides stage a conference on export control procedures and policy issues relating to the planned civil nuclear cooperation. End summary.

¶2. (SBU) After introducing representatives of the U.S. nuclear industry (see paragraph 12) Commerce Undersecretary Lavin opened his December 2 discussion with Dr. Anil Kakodkar, chairman of India's Atomic Energy Commission, with a mention of the historic quality of the Business Development Mission. He said that the Congressional support for the civil nuclear legislation was overwhelmingly positive, demonstrating broad and deep bipartisan support for a deeper strategic partnership between the U.S. and India.

¶3. (SBU) Kakodkar said India currently had a power generation capacity of 132,000 MW. Conservative studies conducted by the AEC show there was a need to expand this capacity 11 - 12 times. Despite this growth, an energy deficit will remain. Ideally, nuclear power should make up 25 percent of the country's power mix. Achieving that goal would ultimately require the installation of 100 times the current nuclear capacity - or 350,000 MW. Fuel is a problem, however, since there was only enough fuel to generate 10,000 MW.

No Constraints on India's Fast Breeder Program, Kakodkar Insists

¶4. (SBU) To meet the described growth requirements, the AEC was pursuing a three-stage strategy which will include fast breeder technology - keeping in view the country's wealth of thorium reserves. R&D was proceeding smoothly; the first experimental 500 MW fast breeder reactor would become commercially viable soon. This first generation thorium reactor would utilize oxide fuel. The breeder program, Kakodkar said, was a must for India - and this was the imperative of his concerns about the U.S.-India nuclear agreement. Nothing should constrain India's

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growth plans in this field.

Imported Technology Will Be "Indigenized"

¶5. (SBU) In the near term, Kakodkar said, there was a need for the NPCIL to augment its capacity with additional reactors from international vendors. The bedrock of this cooperation must be what he called "mutual respect", and an appreciation for India's desire to indigenize technology and develop local supply chains.

¶6. (SBU) Kakodkar said he believed the U.S. will embrace India's plans for a closed fuel cycle from the standpoint of sound engineering and to meet the environmental challenges resulting from spent fuel. For the initial power plants using foreign technology, however, the spent fuel will either need to be reprocessed or shipped back to the supplier. In all cases, there must be reliable fuel and technology supplies, Kakodkar told Lavin.

¶7. (SBU) Initially, India will purchase foreign reactors for four "nuclear island" projects identified on the east coast of India. (Note: A day earlier, officials of the Nuclear Power Corporation of India told the delegation they had identified six locations, two of which were on India's west coast. See reftel). Each unit will require 6 to 8 reactors, and each island will have a capacity of 6,000-10,000 MW. Kakodkar said that the final price of electricity generated could not be the criteria for the selection of a technology if everything will be imported. There will not be open bids for these projects, but rather direct negotiations with individual vendors. Selection criteria will focus on the technology and, more importantly, the ability to develop, in country, an indigenous support capability and supply chain. Therefore, the concept of co-production, technology transfer, and development of critical spares in-country will figure highly in the final negotiations and selection. Kakodkar

said India had no preference for which technology it imports. Cost efficiency and indigenization were the main drivers in the selection process.

Private Participation in the Nuclear Power Industry

¶8. (SBU) Kakodkar clarified India's plans for private sector participation in the nuclear power industry. As long as the majority stake was held by a public sector company (namely the two GOI nuclear enterprises, NPCIL and Bhavini), private participation was possible. Kakodkar used the theoretical example of Larsen & Toubro (a large and respected Indian engineering and construction firm) and a U.S. utility teaming with majority shareholder NPCIL as a model that would be permissible under current law. (Note: In New Delhi the T. Sankarlingam, managing director of the state-owned National Thermal Power Corporation, told the delegation that his company could also conceivably team up with a foreign vendor to operate a nuclear power plant. End note.) Kakodkar said that regulatory and policy issues needed to be addressed, but this was achievable so long that the U.S.-India civilian nuclear initiative passed the U.S. Congress.

All U.S. Industry Supports Civil Nuclear Deal

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¶9. (SBU) USIBC President Ron Somers, who accompanied U/S Lavin to the meeting, made the point that all U.S. industry supported the civil nuclear initiative, including those industries unrelated to nuclear power. Moreover, this was the first time that the Indian American community mobilized in unanimous support, since the legislation was seen by them as a test of trust and mutual respect. Somers also underscored the Undersecretary's argument that whatever the flaws of the final legislation, it was important for the two countries and both must focus on the long term view and make the initiative work. Waiting for better legislation in the 110th Congress would be a folly, Somers said, since the authors of the troubling provisions were from the party that will soon control both houses of Congress; they would unlikely offer a better bill.

¶10. (SBU) Kakodkar asked about Westinghouse's status and its new Japanese shareholders. Likewise, he queried about GE's tie-up with Hitachi. The U.S. delegation assured him that equipment could be sourced from around the globe to assure reliable supply at lowest cost - and that these new tie-ups were to enable just that.

¶11. (SBU) Under Secretary Lavin offered the vision of a global partnership to develop projects outside India in third countries. He also invited Kakodkar and the NPCIL team to come to Washington to share their perspective with U.S. decision makers. Kakodkar ended by indicating an interest in organizing a discussion and conference on export control procedures and policy issues relating to U.S. cooperation with India.

Participants

¶12. (U) United States:

-- Frank Lavin, Undersecretary of Commerce for International Trade

-- Joe Neuhooff, Director, Office of Energy and Environmental Industries, Department of Commerce (notetaker)

-- Ron Somers, President, U.S. India Business Council

-- Pramod Joshi, Marketing Director - India Region, General

Electric

-- Omer Brown, Contractors International Group on Nuclear Liability

India

-- Dr. Anil Kakodkar, Chairman, Indian Atomic Energy Commission and Secretary, Department of Atomic Energy

-- Dr. Nandhini Iyer Krishna, Joint Secretary (MEA), Department of Atomic Energy

-- Dr. Ravi Grover, Director, Strategic Planning Group, Department of Atomic Energy.

¶13. (U) Embassy New Delhi and DOC/FCS New Delhi cleared this cable.
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